Artech
Material Passport

Digital Product Passport (DPP)

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Artech International

• Artech International; a Brussel based SME expert in advanced technology and extensive European network reach. Specializing in transforming early-stage technological ideas into fully implemented projects having a strong track record, recognized by European industries and organizations.

• Finalized & ongoing National, EIT Urban Mobility, Horizon Europe, KDT RIA projects.

• Interested in participating in Global RIA calls;
  • HORIZON– Chips 2024–2–RIA–T1
  • HORIZON– Chips 2024–2–RIA–T2
  • HORIZON– Chips 2024–3–RIA
Digital Product Passport - DPP

• DPP is a strategic initiative to ensure products, specifically in the semiconductor and electronics sectors, maintain a transparent, sustainable, and traceable lifecycle. By incorporating DPP, we aim to align with the Chip Act's objectives, enhancing the semiconductor industry's resilience and competitiveness through sustainable and ethical manufacturing practices.

• **Enhanced Transparency:** Material & Process Disclosure: DPP provides in-depth visibility (Data-as-a-Service) into the materials and processes used in chip manufacturing, promoting environmental responsibility.

• **Sustainability & Ethical Manufacturing:** Environmental Impact: DPP emphasizes reducing the carbon footprint and optimizing recycling efforts, directly supporting the Chip Act's sustainability goals using Large Knowledge Models in Industrial Applications.

• **Regulatory Compliance & Industry Standards:** Adherence to Regulations: Through DPP, companies can demonstrate compliance with the Chip Act by ensuring their supply chains and manufacturing processes meet the specified standards for sustainability and ethical practices using risk mitigation.
• **Regulatory Alignment**: DPP aligns with the Chip Act by detailing product lifecycles from sourcing to disposal, ensuring compliance but also serves as a robust risk mitigation strategy.

• **Sustainability Focus**: DPP helps companies track and lessen their environmental footprint, supporting the Chip Act's sustainability goals using near real-time analytics.

• **Innovation and Competitiveness**: DPP boosts global market competitiveness, encouraging innovation with a commitment to sustainability and ethics.

• By providing sector-specific action lists, our services empower each stakeholder with a customized roadmap for compliance, ensuring a proactive and strategic approach to addressing regulatory challenges within their unique operational contexts.
AI-Empowered DPP Platform

• **Cloud-Native Design**: Offers a scalable, adaptable, and secure infrastructure.

• **Real-Time Insights**: Enhanced with AI for continuous monitoring, providing instant ESGE data analysis.

• **Customization and User Experience**: Features customizable modules and a user-friendly interface for easy access to sustainability performance and benchmarks.

• **Implementation Strategies**:
  - **DPP as Core Framework**: Ensures consistent data management and interoperability across sectors.
  - **Standardization and Privacy**: Advocates for standardized data exchange protocols and privacy-preserving technologies, aligning with sustainability goals.
  - **Future-Proof Compliance**: Emphasizes scalable solutions, proactive stakeholder engagement, and alignment with regulatory changes, including the Chip Act for electronic components.

Material Passport
Future Directions & Collaboration

• **Stakeholder Engagement**: Foster a collaborative ecosystem with key players in the manufacturing sectors to drive innovation and sustainability. This innovative solution seamlessly integrates the Environmental, Social, Governance, and Economic (ESGE) modules, offering a comprehensive and dynamic approach to supply chain monitoring and sustainability assessment.

• **Adaptation to Standards**: Commit to the continuous adaptation of our platform and practices to meet the latest data privacy, safety, and environmental regulations.

• **Sustainable Industry Leadership**: Leverage sustainable practices to spearhead industry innovation, set new & adapt standards, and secure a competitive edge in the global market.
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